

## Analytical Results

### **TOTAL HYDROGEN (melted/fused)**

**Mean value = 2.0 (ug/g) (0.0002 wt. %)**

**Standard deviation = ± 0.6 (ug/g) (± 0.00006 wt. %)**

**Expanded uncertainty = ± 1.0 (ug/g) (± 0.0001 wt. %)**

**(Expanded uncertainty k=2, @ 95% confidence, n=30)**

Reference materials used for certification:

NCS – NS20025b

JSS – JSM 481-2, KMS-H6, KMS-H4

### **Method of Analysis:**

**Inert Gas Fusion Thermal Conductivity Detection, and InfraRed Detection.**

*\*The analytical results above are provided by an accredited reference material manufacturer with a current certification in ISO 17025 and 17034.*

The intended use of this Reference Material (RM) is for the calibration and continued quality verification of hydrogen in steel by inert gas fusion (fully melted), using thermal conductivity or infrared detection analysis.

The minimum (and typical) sample size to perform this intended use is 1g (1pin).

The Period of Validity for this RM is not able to be determined and should be reviewed 25 years after the date below.

This bottle contains 100g of 1g pins (nominal) to be used per the test method you follow. Keep sealed tightly and store under normal laboratory conditions.

Refer to your test methods and or manufacturer manual for expanded uncertainties, repeatability/reproducibility factors.

For good laboratory practice, we recommend that all reference materials be verified as fit for purpose prior to use. Remedies for any claimed defect in this product will be limited to product replacement or refund of the purchase price. In no event shall Elemental Microanalysis Ltd. be liable for incidental or consequential damages.

Certified on the 5<sup>th</sup> of December 2023

Elemental Microanalysis Ltd